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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,393	11/02/2001	Masaya Ishida	9319S-000303	1032

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EXAMINER

TRINH, HOA B

ART UNIT PAPER NUMBER

2814

DATE MAILED: 03/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/002,393

Applicant(s)

ISHIDA

Examiner

Vikki H Trinh

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-47 is/are pending in the application.
- 4a) Of the above claim(s) 26-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 18-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 18-47 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. Claims 26-40 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected group II, there being no allowable generic or linking claim.

Applicant timely traversed the restriction (election) requirement in Paper No. 9.

2. Applicant's election with traverse of Group I, claims 18-25, and newly submitted claims 41-47, in Paper No. 9 is acknowledged. The traversal is on the ground(s) that both groups of claims are drawn to the "subject matter which are so related". This is not found persuasive because as mentioned in the previous Office Action, the process can be used to make another materially different product such as a LED, and the product can be made with another materially different process such that the process includes the step of providing at least an active layer.

The requirement is still deemed proper and is therefore made FINAL.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

5. Claims 18-25, 42, 44-47 are rejected under 35 U.S.C. 102(e) as being anticipated by Liedenbaum et al. (6,054,725)

Liedenbaum et al. (6,054,725) discloses an organic electroluminescent device 1 having the following elements:

With respect to claim 18, an organic thin film transistor element (OTFTE) 16B, 3A, 3B, 8, 15 including at least an active layer 15 made of an organic material; and an organic electroluminescent element (OEE) 15A driven by the organic thin film transistor element. See figures 3-4.

As to claim 19, a substrate 8, wherein the OEE 15A is provided between the substrate 8 and the OTFTE 16B. See figure 4.

As to claim 20, a substrate 8, wherein the OTFTE 3B is provided between the substrate and the OEE 15A. See figure 4

As to claim 21, the total area of the S/D region area 3A-B of the OTFTE is larger than the area of the region provided with a luminescent material of the OEE 15A. See figure 4.

As to claim 22, the S/D, which constitute the OTFTE, have bent parts that face each other at a predetermined spacing. See figures 3- 4.

As to claim 23, a gate 16B is provided so as to cover the bent parts of the source and the drain. See figure 4.

As to claim 24, the bent parts are provided in "comb-shape" and face each other at a predetermined spacing. See figures 3- 4, and col5, lines 38-41.

As to claim 25, the bent parts 33A-B are provided in "spiral-shape" and face each other at a predetermined spacing. See col7, lines 10-12.

Art Unit: 2814

As to claim 42, the OEE includes a luminescent layer 15A having a cylindrical shape.

See figures 3-4.

As to claim 44, the luminescent layer 15A is made from polyphenylene. See col 6, lines 3-15.

As to claim 45, an electrode 6, 16B connected to the OTFT and in contact with the luminescent layer, and an insulation film 15 provided between the substrate and the electrode. See figure 4.

As to claim 46, a luminescent layer 15A and the electrode 16B is larger than the luminescent layer. See figure 4.

As to claim 47, an electrode 16B connected to the OTFT and contacted with the luminescent layer 15A and the electrode has a cylindrical shape. See figure 4.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liedenbaum et al. (6,054,725) in view of Dimitrakopoulos et al. (6,335,539).

Liedenbaum et al. (6,054,725) discloses the invention substantially as claimed. However, Liedenbaum et al. (6,054,725) does not explicitly teach the active layer 15 is made from pentacene.

Dimitrakopoulos et al. (6,335,539) discloses an organic TFT having an active layer 20 made from pentacene. See col5, line 39-45.

Therefore it would have been obvious to one skilled in the art at the time the invention was made to modify the material of the active layer of Liedenbaum et al. (6,054,725) with pentacene, as taught by Dimitrakopoulos et al. (6,335,539), so as to provide mechanical flexibility and to reduce the cost of making the device. See col 1, lines 12-25.

10. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liedenbaum et al. (6,054,725).

Liedenbaum et al. (6,054,725) discloses the invention substantially as claimed. However, Liedenbaum et al. (6,054,725) does not explicitly teach a specific thickness of the luminescent

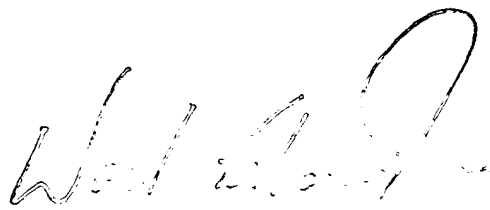
Art Unit: 2814

layer. Nevertheless, it would have been obvious to one skilled in the art at the time the invention was made to specify the thickness of the luminescent layer of Liedenbaum et al. (6,054,725) to be about 80 nm, since it's prima facie obvious of an artisan's experimentation and optimization because applicants have not established any criticality for the invention to be made with that specific thickness of the luminescent layer.

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
Utsugi (5,747,930) discloses an organic TFED having an organic layer, an El layer and other elements in the document.
2. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Vikki Trinh whose telephone number is (703) 308-8238. The Examiner can normally be reached Mon-Tuesday, Thurs-Friday, 7:30 AM - 6:00 PM Eastern Time. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Mr. Wael Fahmy, can be reached at (703) 308-4918. General inquiries relating to the status of this application should be directed to the Group receptionist at (703) 308-0858. The fax number is (703) 308-2708.

Vikki Trinh,
Patent Examiner
AU 2814



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